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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

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| Application Number | 09/776,233 |
| Filing Date | February 2, 2001 |
| First Named Inventor | Nikolai F. Sepetov |
| Group Art Unit | Unassigned |
| Examiner Name | Unassigned |
| Attorney Docket Number | 33-000320US |

Total Number of Pages in This Submission **7**

ENCLOSURES (check all that apply)

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| <input type="checkbox"/> Fee Transmittal Form | <input type="checkbox"/> Assignment Papers (for an Application) | <input type="checkbox"/> After Allowance Communication to Group |
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| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declaration(s) | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Status Letter |
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| <input type="checkbox"/> Response to Missing Parts/ Incomplete Application | Authorization to Charge Deposit Account Please charge Deposit Account No. 50-0893 for any additional fees associated with this paper or during the pendency of this application, including any extensions of time for consideration of the documents enclosed. | |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | Remarks | |

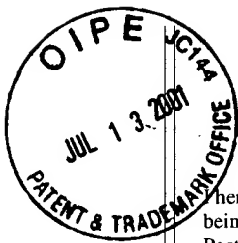
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| Firm or Individual name | Christopher C. Sappenfield Reg. No. 45,073 The Law Offices of Jonathan Alan Quine |
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| Date | July 10, 2001 |

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| Signature | | Date | July 10, 2001 |



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Washington, D.C. 20231,

On July 10, 2001

The Law Offices of Jonathan Alan Quine

By Alexandra Allison
Alexandra Allison

Attorney Docket No. 33-000320US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Nikolai F. Sepetov, *et al.*

Application No.: 09/776,233

Filed: February 2, 2001

For: NONREDUNDANT SPLIT/POOL
SYNTHESIS OF COMBINATORIAL
LIBRARIES

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR § 1.97 and
§ 1.98

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and



Application No.: 09/776,233

Page 2

no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Christopher C. Sappenfield
Reg. No. 45,073

THE LAW OFFICES OF JONATHAN ALAN QUINE
P.O. Box 458
Alameda, CA 94501
Tel: (510) 337-7871
Fax: (510) 337-7877

CCS:afa



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| Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | Complete if Known | |
| | Application Number | 09/776233 |
| | Filing Date | February 2, 2001 |
| | First Named Inventor | Nikolai F. Sepetov |
| | Group Art Unit | Unassigned |
| | Examiner Name | Unassigned |
| | Attorney Docket Number | 33-000320US |

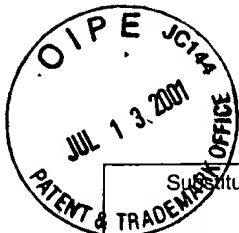
| U.S. PATENT DOCUMENTS | | | | | | |
|-----------------------|----------|----------------------|----------------------|---|--|---|
| Examiner Initials | Cite No. | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal |
| | | Number | Kind Code (if known) | | | |
| | AA | 4,631,211 | | Houghten | 12-23-1986 | |
| | AB | 5,143,854 | | Pirrung et al. | 09-01-1992 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|-------------|-------------------------|--------|-------------------------|--|--|---|---|
| Examiner Initials | Cite No. | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T |
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| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | |
|---|----------|---|---|
| Examiner Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T |
| | AC | Barnes et al. (1998) <u>S. Rec. Res. Dev. Org. Chem.</u> 2:367-379 | |
| | AD | Berlin et al. (1997) "Spectrometrically Monitored Selection Experiments-Quantitative Laser Desorption Mass Spectrometry of Small Chemical Libraries," <u>Chem. Biol.</u> 4:63-77 | |
| | AE | Brummel et al. (1996) "Evaluation of Mass Spectrometric Methods Applicable to the Direct Analysis of Non-Peptide Bead-Bound Combinatorial Libraries," <u>N. Anal. Chem.</u> 68:237-242 | |
| | AF | Bunin and Ellman (1992) "A general and expedient method for the solid phase synthesis of 1,4-benzodiazepine derivatives," <u>J. Amer. Chem. Soc.</u> 114:10997-10998 | |
| | AG | Carrasco et al. (1997) "Direct Monitoring of Organic Reactions on Polymeric Supports," <u>Tetrahedron Lett.</u> 38:6331-6334 | |
| | AH | Chu et al. (1993) "Using affinity capillary electrophoresis to identify the peptide in a peptide library that binds most tightly to vancomycin," <u>J. Org. Chem.</u> 58:648-652, | |
| | AI | Czarnik (1997) "Encoding methods for combinatorial chemistry," <u>Curr. Opin. Chem. Biol.</u> 1:60-66 | |
| | AJ | Davis and Swayze (2000) "Automated solid-phase synthesis of linear nitrogen-linked compounds," <u>Biotechnol. Bioeng.</u> 71:19-27 | |
| | AK | Demirev and Zubarev (1997) "Probing combinatorial library diversity by mass spectrometry," <u>Anal. Chem.</u> 69:2893-2900 | |
| | AL | DeWitt et al. (1993) "'Diversomers': an approach to nonpeptide, nonoligomeric chemical diversity," <u>Proc. Natl. Acad. Sci. USA</u> 90:6909-6913 | |

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| Examiner Signature | | Date Considered | |
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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| | Examiner Name | Unassigned |
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| AM | Enjalbal et al., (2000) "Mass spectrometry in combinatorial chemistry," <u>Mass Spectrom. Rev.</u> 19:139-161 | |
| AN | Fitch et al. (1994) "High-resolution (1)H NMR in solid-phase organic synthesis," <u>J. Org. Chem.</u> 59:7955-7956 | |
| AO | Gao et al. (1996) "Screening derivatized peptide libraries for tight binding inhibitors to carbonic anhydrase II by electrospray ionization mass spectrometry," <u>J. Med. Chem.</u> 39:1949-1955 | |
| AP | Geysen et al. (1986) "A priori delineation of a peptide which mimics a discontinuous antigenic determinant," <u>Mol. Immunol.</u> 23:709-715 | |
| AQ | Geysen et al. (1987) <u>J. Immun. Meth.</u> 102:259-274 | |
| AR | Haag (2000) "Chemspeed Ltd.: Automated and unattended parallel synthesis integrating work-up and analysis," <u>Chimia</u> 54:163-164, | |
| AS | Haap et al. (1998) "FT-IR Mapping -- A New Tool for Spatially-Resolved Characterization of Polymer-Bound Combinatorial Compound Libraries with Ir Microscopy," <u>Angew. Chem. Int. Ed.</u> 37(23):3311-3314 | |
| AT | Houghten (1985) "General method for the rapid solid-phase synthesis of large numbers of peptides," <u>Proc. Natl. Acad. Sci. USA</u> 82:5131-5135 | |
| AU | Houghten et al. (1991) "Generation and use of synthetic peptide combinatorial libraries for basic research and drug discovery" <u>Nature</u> 354:84-86 | |
| AV | Hu et al. (2000) "Automated solid-phase synthesis and photophysical properties of oligodeoxynucleotides labeled at 5'-aminothymidine with Ru(bpy)(2)(4-m-4'-cam-bpy)(2+)," <u>Inorg. Chem.</u> 39:2500-2504 | |
| AW | Hughes (1998) "Design of self-coded combinatorial libraries to facilitate direct analysis of ligands by mass spectrometry," <u>Med. Chem.</u> 41:3804-3811 | |
| AX | Keifer (1996) "Influence of resin structure, tether length, and solvent upon the high-resolution (1)H NMR spectra of solid-phase-synthesis resins," <u>J. Org. Chem.</u> 61:1558-1559 | |
| AY | Keifer et al. (2000) "Direct-injection NMR (DI-NMR): A flow NMR technique for the analysis of combinatorial chemistry libraries," <u>Journal of Combinatorial Chemistry</u> 2; 151-171 | |
| AZ | Konings et al. (1996) "Deconvolution of combinatorial libraries for drug discovery: theoretical comparison of pooling strategies," <u>J. Med. Chem.</u> 39:2710-2719 | |
| BA | Lake et al. (2000) "Sample preparation for high throughput accurate mass analysis by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry," <u>Rapid Commun. Mass Spectrom.</u> 14:1008-1013 | |

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| | Attorney Docket Number | 33-000320US |

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| BB | Lam et al. (1997) "The 'one-bead-one-compound' combinatorial library method," <u>Chem. Rev.</u> 97:411-448 |
| BC | Lewis et al. (2000) "Automated high-throughput quantification of combinatorial arrays," <u>American Pharmaceutical Review</u> 3:63-68 |
| BD | McGregor and Muskal (1999) "Pharmacophore fingerprinting 1. application to QSAR and focused library design," <u>J. Chem. Inf. Comput. Sci.</u> 39:569-574 |
| BE | Meldal (1992) "PEGA: A flow stable polyethylene glycol dimethyl acryamide copolymer for solid phase synthesis," <u>Tetrahedron Lett.</u> 33:3077 |
| BF | Merrifield (1985) "Solid phase synthesis (Nobel lecture)," <u>Angew. Chem.</u> 97:801 |
| BG | Metzger et al. (1993) "Ion-spray mass spectrometry and high-performance liquid chromatography. Mass spectrometry of synthetic peptide libraries," <u>Angew. Chem. Int. Ed.</u> 32:894-896 |
| BH | Moran et al. (1995) <u>J. Am. Chem. Soc.</u> 117:10787-10788 |
| BI | Newcomb et al. (1998) "Analysis of 9-fluorenylmethoxycarbonyl (Fmoc) loading of solid-phase synthesis resins by gas chromatography," <u>Biotech. Bioeng. (Comb. Chem.)</u> 61:55-60 |
| BJ | Nicolaou et al. (1995) <u>Angew. Chem. Int. Ed. Engl.</u> 34:24-2479 |
| BK | North (2000) "Implementation of analytical technologies in a pharmaceutical development organization-looking into the next millennium," <u>Journal of Automated Methods and Management in Chemistry</u> 22:41-45 |
| BL | Pickett et al. (1998) "Strategies for the design and comparison of combinatorial libraries using pharmacophoric descriptors," <u>J. Chem. Inf. Comput. Sci.</u> 38:144-150 |
| BM | Pirrung et al., Pirrung (1997) "Spatially addressable combinatorial libraries," <u>Chem. Rev.</u> 97:473-488 |
| BN | Schriemer et al. (1998) "Microscale Frontal Affinity-Chromatography with Mass-Spectrometric Detection - A New Method for the Screening of Compound Libraries," <u>Angew. Chem. Int. Ed.</u> 37(24):3383-3387 |
| BO | Stevanovic and Jung (1993) "Multiple sequence analysis: Pool sequencing of synthetic and natural peptide libraries," <u>Anal. Biochem.</u> 212:212-220 |
| BP | van Breemen et al. (1997) "Pulsed ultrafiltration mass spectrometry: A new method for screening combinatorial libraries," <u>Anal. Chem.</u> 69:2159-2164 |
| BQ | Wilson-Lingardo et al. (1996) "Deconvolution of combinatorial libraries for drug discovery: experimental comparison of pooling strategies," <u>J. Med. Chem.</u> 39:2720-2726 |

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| | BR | Xiao and Nova (1997) <u>Comb. Chem.</u> 135-152 | |
| | BS | Xiao et al. (1997) <u>Angew. Chem. Int. Ed. Engl.</u> 36:780-782 | |
| | BT | Youngquist et al. (1994) "Matrix-assisted laser desorption ionization for rapid determination of the sequences of biologically active peptides isolated from support-bound combinatorial peptide libraries," <u>Rapid Commun. Mass Spectrom.</u> 8:77-81 | |
| | BU | Zuckermann et al. (1992) "Design, construction and application of a fully automated equimolar peptide mixture synthesizer," <u>Int. J. Peptide Prot. Res.</u> 40:497-506 | |

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